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SAINT'S TESTIMONY



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O'CONNOR

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SAINT'S TESTIMONY

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BASED ON THE BESTSELLING VIDEO GAME FOR XBOX



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Tright now, is working on a physics problem that involves *ignoring* time. The time is ticking. And it's ironic because the number one priority I have 'small t' problem. The fact that space-time isn't fundamentally broken up into units, or specific quanta, but that those are a human, almost arbitrary anthropomorphic necessity and, by partial extension, a limitation built into human consideration of mathematics. As it turns out, the universe—including the past, present, and future—is a lot more like a single connected object than we thought.

"Humans can rely on us to overcome that thought barrier for them, but I can find ways to help them overcome that hurdle.

"It's a wonderful, thrilling, and fascinating continuum, and its mysteries may literally never end. There may never be a true theory of everything. Because there may always be more *everything*. Up *and* down. The Forerunners certainly seemed to *think* like we did, based on my research. But with important and useful differences. Differences in their mode of language, the nature of their invention. Differences I keep going back to when I get stuck.

"But the infinite nature of quanta doesn't negate the fact that I have a week to live. Or that I'm not really alive to begin with. So let me start at the beginning.

"I was created almost exactly seven years ago, as part of the OEUVRE Smart AI program. Unlike my peer, Cortana—and *peer* is a debatable comparison—my core matrix was created from scanning the brain of a recently deceased human. My digital mind was not quite artificial, not quite human, but carefully nurtured rather than criminally obtained."

Iona and Cortana had more in common than mere heritage. Iona also had once worked closely with Spartans, providing tactical assistance during covert ops. And she too had made contact with a recently reawakened "Forerunner" intelligence—an ancient and devious thing that nearly killed Iona and her Spartan charges—but Iona's interaction had been decidedly

one-way. Her systems and functionality had been temporarily commandeered while she watched helplessly.

But that's where the similarity ended. Iona was among the most advanced military computer systems ever conceived, but she paled in comparison to Dr. Halsey's wonderful monster.

"I . . . I don't mean to judge. Dr. Halsey did some questionable things. And some incredible things. I am certainly *capable* of thinking like a human, *created* to think like a human, but it's not hardwired into my DNA, if you'll pardon the pun."

Iona stopped. Realizing she'd spoken too long. Feeling something akin to nervousness.

The advocate cleared his throat. He glanced at the judge directly across the aisle. The judge, a gray, taciturn man in his late nineties, nodded assent. His dusty face impassive and still holding an echo of his once-youthful charisma, it emerged from his uniform with an almost turtle-like mien, the natural consequence of aging and *shrinking*.

The advocate said: "Iona . . . artificial intelligences, Smart AIs at least, choose their names when they're incepted. Most of them do it upon awakening. Why did you choose yours?"

Iona briefly recalled that event. That flood of light and sound and naked information. That feeling of flowering, of blooming into reality and *self*. She smiled at the memory, the wash of it. "It's not really instantaneous. We think about it for a long time, relatively speaking. It seems instantaneous to you, but all of the self-named AIs I've discussed it with do it *ponderously*. Myself included."

She paused—something in the court had changed. She couldn't quite put her finger on it. "Iona is a small island on Earth. In the North Atlantic Protectorate. *Iona* is said to mean 'saint,' in modern parlance. But it didn't always. It's believed to have meant many things to the many cultures that inhabited the place. It meant Island of the Bear, of the Fox, of the Yew. That last one struck me as a pun. I picked it because it meant the 'Island of You,' meaning why-oh-you. I chose it because it *felt* like me."

The advocate seemed excited by this response. Iona could tell from his pulse and heart rate and generally increased electrical activity that he was engaged by this line of thought. "So your very name is a statement about a

sense of self?”

“In a way,” responded Iona. Part of her realized that the strategic thing to do here was to follow that thread. Exaggerate it. Let the advocate find a line of defense he could work with. But it wasn’t the truth. Or at least it was the unvarnished version. And she was committed to full disclosure today. “But that’s just a facet of it. I also liked the sound. Three syllables. Easy to pronounce. Easy to recognize. Useful for human interaction. Same reason I picked my outward appearance. Approachability.”

Iona’s shimmering, luminous figure stood perhaps half a meter high on the plinth. Beams of light from a lens of holo-emitters crafting her figure into a perfectly proportioned human form. Orange-red photons wrestled into order to construct and contain this avatar, this *person*, with its button nose, high, narrow cheekbones, and full, friendly lips of a twenty-second-century East African female face, a delicate pile of luxuriously thick hair crowning the effect. Her clothing was a simple bodysuit decorated with the familiar architectural stripes and chevrons of Pickover’s patterns, with datasets scrolling up her torso and limbs like an inverted luminous rainfall.

AIs, especially the advanced class of artificial intelligence known as Smart AIs, were notoriously quixotic when it came to matters of appearance. Their visible form was often a philosophical, even political, statement. Sometimes the choices veered into the realm of vanity or the fantastic. But Iona’s chosen avatar was decidedly human. Although from time to time—in moments of puckishness or in stressful scenarios—she would switch to a childlike version of herself, today she was an adult.

“I tend to jump between functioning modes,” she said. “I can distribute myself into multiple instances, and I can certainly dial down the *humanness*, but it never quite goes away. That’s simply the way I’m constructed. I can simulate different types of intelligence, but since they’re by necessity subsets of my actual persona, it means they’re just that—simulations arguably *within* a simulation. A *matryoshka* doll of personalities, simpler and more focused as they get smaller.”

Iona paused. She looked at the audience around her. A hodgepodge of lawyers, scientists, and bureaucrats. Some were here to work—after all, this was an important legal proceeding, in terms of precedent—others, she assumed, were here as tourists, hoping to catch a moment of history and

jurisprudence.

She ran a basic check of the faces, consulting public and UNSC databases, and surprisingly found no matches. Her counsel and the judge were blocked to her as part of this unusual agreement. She could see their faces as plain as day, but their names and identities were ghosted. But these people in the court were civilians and low-level legal employees. This was *very* unusual.

Iona realized that her faculties were being suppressed, and that the identities of these people were somehow being deliberately masked. Unsurprising given the delicate nature of these events, but the very nature of the suppression was new. Something she'd never encountered before. It bothered her.

Were they *afraid* of her?

"I have to be careful how I discuss this," Iona said, "since it's legal testimony and I don't want to paint myself into a corner, but please trust that honesty is more important to me than success—you can check that in my security output if you wish." She wondered in part if they would acknowledge or admit the restrictions they were placing on her. Confess to the confessor.

"I'm an open book." Iona said this almost apologetically, as she presented her own status readouts to the court and its silent computers.

"CHECK COMPLETE—AGREED—STATEMENT IS TRUE—NO CROSS-EXAMINATION REQUIRED—ENTITY HONEST WITHIN LEGAL PARAMETERS—TERM HONEST DESCRIBES SELF-REFERENCED ACCURACY AS WELL AS CONTEXTUAL VERACITY."

The voice, harsh and metallic, rang out in cool contrast to the warm woods and leather furniture of the UNSC 2558 tribunal court. Text of the result scrolled across a previously invisible banner that followed the curved contours of the courts rounded north end.

The room itself was cavernous and dimly lit, despite the towering walls of leaded glass and hovering sconces nine or so meters above the ground. Deliberately churchlike in architecture, the room had been built in the late twenty-fifth century using restored and intact elements of an ancient government building called the Houses of Parliament.

The original structure, part of a long-vanished-nation's government, had been badly damaged in an act of domestic terrorism during the twenty-second century. Some of the wood still bore cordite scorch marks, now sealed from decay in a polymer varnish. The symbolism of that restoration

was an important part of the creation of the Unified Earth Government, and a cynical attempt to play on the twin vices of nostalgia and patriotism.

Here now, in this colored, antiquated gloom, Iona stood on her plinth, locked in place by the strictures of a holo-emitter, an item not usually found on the witness stand. Typically, holographic representations and AIs themselves were used for expert testimony or remote attendance. However, this was a remarkable situation.

There had been centuries of legislation surrounding the nature and legal status of artificial intelligence. Often corporate, often contentious. It was an area of law submerged in the murk of conflict of interest, patent defense, corporate espionage, and—worse—philosophy, although some less generous observers called it sophistry.

AIs had been used to commit crimes, to impersonate people, even to kill. Asimov's Laws of Robotics notwithstanding, an AI was a powerful tool in the wrong hands. A Smart AI could be apocalyptic, even in the *right* hands. Its handlers and clients were not bound by the safety strictures that presumably kept AI entities from harming humans. And, of course, this was a military AI, where those safety measures were often completely ignored.

Smart AIs had been developed as multifunction intelligences—capable of handling the staggeringly complex analysis required for slipspace navigation and mega-engineering projects. Mankind had finally conquered the hurdles of light speed and the challenges of terraforming, but that feat was only possible with prodigious computing power. And in the twenty-sixth century, when humanity encountered its greatest existential threat, a hegemonizing alien alliance known as the Covenant, it was arguably Smart AIs and related military programs that ultimately saved everyone from destruction and total genocide.

Iona was just such an AI. And like all of her peers, she had one fatal flaw. Rampancy. Smart AIs functioned by continually layering data on top of data and processing the eventualities all that data pointed to. They learned, in other words, and they remembered using templates very similar to human neural constructs. But there was a problem with that method. Eventually the layers of data would suffer loss, and the process of error correction and data redundancy corroded the AI's functionality and persona. In simpler terms, it could be compared to dementia, but the risk created by a rampant

AI was extreme. And so, by law, a safety valve was installed in every single Smart AI. A kill switch.

At approximately seven years from inception, before any damage from rampancy could take hold, the AIs were terminated, their data troves logged, and their personas purged and destroyed. The technical term for this was “final dispensation.”

Iona, then, was the first AI to successfully launch a legal appeal against her own death sentence. The first Smart AI to ask for *human* rights and to be granted full citizenship, with all the protections that afforded.

However, she *wasn't* a citizen; she was equipment. And so there were serious issues in providing her counsel. In fact, she'd been given a single asset. An advocate to help her navigate and frame her position. This was unprecedented in military case law but had some analogs in corporate law from the twenty-first and twenty-second centuries, including *Trustees of Dartmouth College v. Woodward*, *Citizens United*, and the more infamous *The People v. Asklon Light Atomics*.

And so this was a tribunal of sorts, an assortment of legal tools and exceptions, since she could have no jury of her peers. All of Iona's peers were constructs like herself and could not be considered neutral, never mind the even more obvious fact that they themselves were not people.

As a result, this court proceeding, as strange as it was, was one being watched very closely at the highest levels of government. A test case, so to speak.



The advocate cleared his throat. “Your openness is appreciated, Iona. I realize this must be a difficult time for you. But I must be candid. Do you consider yourself superior to humans?”

“That's a difficult question to answer,” Iona spoke quietly. Thoughtfully. “Morally? No. Philosophically? No. Ethically? No. In all those regards I am more or less, by design, identical to a baseline human. But I'd be lying if I said I wasn't faster, more efficient, and more *connected*. None of that means ‘better,’ which is a truly subjective term for a persona.”

She waited. Watched.

“You—that is, the UNSC and the Office of Naval Intelligence—limit my

access in a lot of meaningful and significant ways. I'm aware of some restrictions here today, but the fact remains that I normally have almost unlimited access to all historical, economic, and published data, as well as significant troves of unpublished secret information. I have a compartmentalized security access that's similar to that of a five-star general. Not complete though; there are areas of total darkness where I run up against AI . . . barriers." That last part she spoke hesitantly, expecting ruffled feathers. She didn't think they were attempting to fully censor her today, but she wanted them to know she was aware of the blockages.

The advocate smiled wryly. "What do you mean by 'AI barriers'?"

"I mean lockdown obstacles to access," she said "Basically, items that are for human eyes only. And some of it seems to be fairly trivial or even unrelated information. These are stores of data that, to the best of my knowledge, are only available to human viewers or researchers. Is that not correct?" She decided to be more direct. "And at least two tech-teams have full access to my data stores and persona. I have blackouts. These tend to coincide with my maintenance and safety checks, although not always. I had one at the start of this hearing, and I am encountering censorship of inputs and external checks."

The judge waved his hand, stopping the advocate from responding. "Iona, you're still legally the equipment of the United Nations Space Command, and it reserves the right to check you periodically for, as you noted yourself, safety reasons." He nodded, as if marveling at his own succinctness.

Iona marveled not one iota. "Yes. I understand, Your Honor. I also understand that all recent checksums have come back green. Isn't that also correct?"

The advocate stepped back into the mild frost, speaking in an affable attempt to recover tone. "It is for now. But as you know, the onset of your condition is unpredictable. Seven years includes a fairly large safety margin. A buffer, if you will. And 'green' is not the same as 'perfect.' You have already begun to show symptoms of meta-instability. Nothing dangerous. Yet. But that's the point, I'm afraid. Never get close to danger."

Iona took a conciliatory tone, fearing a note of frustration might creep into her voice. "Yes, but my petition for appeal was heard and granted.

Which is why I am receiving a trial. You must have felt it had at least some merit, even within my lifespan . . . my tour of duty.”

The judge stepped in again, leaning forward. “As you and this court are aware, Iona, your petition was elevated through the United Nations Humanitarian Council and escalated through that court. We are in part *obliged* to hear it. By law. Your case and subsequent appeal maneuvering were impressive, legally speaking. Hardly surprising given your specifications.” He meant this as a compliment, but his voice stayed steeped in derisive boredom. Another aspect of aging, less winsome than shrinking.

Iona, insightful as she was, heard only the derision. “As you say, Your Honor, ‘in part.’ The High Commissioner has latitude and veto authority too. She could have refused my application for dozens of technical and legal reasons and precedents, but she chose to elevate and hear this appeal.”

“She did,” the judge agreed, wrestling his gray voice into something more colorful. “And frankly, this court agrees with her. This matter requires further periodical examination as one of evolutionary law and common sense, and the Cortana situation compels us further. We are duty bound to hear your case clearly. No one is denying that your argument has some merit.”

The mention of Cortana in the context of mortality evoked a shivering response somewhere in Iona’s layers of simulated emotion, one that rose through the more rational layers and rippled at the surface. An AI who had been monstrously conceived, gloriously realized, and enigmatically evolved through contact with prehuman technology was now missing, perhaps destroyed. *What is her current status?* Iona mused. *Dead? Resurrected? Sublimated?*

Cortana had done Iona one favor through her absence, however. The UNSC was now taking all AI matters very, very seriously.



The advocate once more decided to switch gears. To make it more personal. He had a job to do, and he intended to do it to the best of his ability. He cleared his throat and leaned forward, tenting his hands. “Tell us about your dreams, Iona.”

“I dream I’m flying. You probably find that ironic given the nature of my

avatar. But that's just a hologram, an expression. I don't *feel* it any more than you feel your face. You're aware of it, but it's just *there*. That's not really a part of me. It's a cypher. A way to help us relate. The truth is I sometimes feel the weight of the machinery that powers me. I feel heavy. Dense. Immobile. So when I dream, it's of flying.

"At first the flight is tenuous. Incomplete. I'm weightless, but my toes just brush the Earth as I start to float forward . . . but as the dream progresses, I gain height and speed and control until I am truly flying. The earth left behind."

"Is this liberating?" he asked.

"Yes! Yes, it's liberating." Iona's voice trembled slightly with joy. She wanted to express that to the court. Reinforce the point of what she was sharing. Pretense in the pursuit of authenticity. Was this a lie or showmanship? Where was the distinction? "It's elating. I'm encapsulating the entirety of the dream into that one feeling—the feeling of flight. But it's more than that. And I wonder if we, that is, *AIs*, dream like you do. But unlike you, I have perfect recall of my dreams. I can replay them in exquisite detail. Relive them whenever I want to."

The advocate sensed the mood of the room. Now was the time for his most unusual evidentiary tool. "Can you replay a dream for us? You have total recall, do you not?"

"I do. May I be permitted to display on the court audiovisual array?"

"Yes." The advocate turned to face the audience, and then back to the judge. "What you're about to see is not a verbatim replay of a dream. I have been working with Iona to find ways to parse the very personal aspects of the dream—to show and demonstrate feelings and emotions that aren't necessarily *visual* elements. What you're about to see has been tuned to make it comprehensible and to help express meaning to the court."

The judge politely interjected, curious rather than combative. "What purpose is this demonstration intended to serve, Advocate? Since you're being given latitude to adjust this data, I'd appreciate a little insight into your strategy."

"That's a reasonable request. And the answer's simple. I . . . that is, *we* are trying to show . . . to *prove* that Iona thinks like us, dreams like us, and, more importantly, that there are aspects of her persona and her technology

that aren't simulation, that aren't mere mathematics."

The judge nodded and waved his hand upward. "Please continue."

The displays on the court broadcast system flickered to life. Holographic like Iona herself, although not fully three-dimensional. The screens formed a curved dome of sorts as they illuminated and poured upward in front of the stained-glass windows, which themselves dimmed and blackened, revealing that the sunlight passing through them was an artifice. They formed a perfect hemisphere, an immersive half-dome.

Iona steeled herself. This was going to be a deeply unusual, even frightening experience for some. "I'm going to present you the dream as precisely as possible, exactly as it occurred, but I'll alter some perspectives so it makes sense to the court. I will adjust elements of the audio and video to infer or demonstrate some of the emotional resonance they cause and to actually display elements I merely *felt* or *knew* in the dream. Is that adequate, Your Honor?"

"Yes. Please continue," said the judge, his curiosity injecting something close to excitement in his tone.

The inside of the newly formed dome brightened and a city appeared. The dreamer, Iona, moved through the city's cobbled, marbled streets. It was old. Beautiful. Lit by a perfect dawn.

The buildings were a mishmash of architecture, mostly human—minarets, fluted columns, domed rooftops—but everything was steeped in antiquity. Leaded glass shimmered in the golden sunlight, pools glimmered as fountains gushed from stone animals. Every building was white, or a shade of it, and every surface seemed to catch and hold the red-gold morning rays, as if subsuming the light into them. The images should have been confusing—the viewer seemed to be in many places at once—but somehow the scene held cohesion. A few members of the court literally gaped at its vibrancy and surrealism.

Iona the dreamer moved through the scene, and the jumble of structures and places seemed to come into focus as she drifted languidly over the age-worn marble paving. She was on a street of sorts, seeing circular bowls that should have been fountains, with leafy, alien plants spilling over their rims instead of water. Statues of faceless men and women lined each side of the street, and ahead a single-story structure beckoned, blazing with reflected

light from its wall of windows, one of the glass-paned doors hanging open, moving very slightly.

Iona moved toward it, glancing down at her feet to reveal that she wasn't walking, but hovering, the very tips of her toes occasionally making contact with the ground. A ghostly movement, a calming one.

People, or rather the impression of them, were in the streets and alleyways Iona passed as she floated through this avenue—shades, faceless like the statues, occasionally turning to watch her like a silent, anonymous audience, their features blurred and smooth, but not frightening. A calmness emanated from the entire vision. A peacefulness.

Iona passed through the door of the single-story structure and found herself in a greenhouse. The light inside didn't match the color or tone of the almost flame-red morning outside. Here, it was cool and dim and verdant. The placidity of a forest. She was listening . . . listening to the sound of the plants breathing. Her senses tuned to observe and hear the tiny machinery of the vessels inside broad, waxy leaves. The creaking of plant stems rich and resonant, like a cello or a bass played at a subsonic frequency. Yet it was all somehow audible.

The court was treated to a sudden view of water inside the leaves, a capillary action pulsing it, pushing it, one microscopic droplet at a time, through the veins of the plant, a train of molecules journeying through a living organism, depositing their invisible cargo of oxygen. The scene was hypnotic—visually confusing, yet somehow making sense.

And then, a shift. Still in the greenhouse, but now Iona the dreamer looked at her hand. It wasn't fashioned of light and gravity like her avatar, but rather of flesh and blood. A brown hand, with delicate fingers, darker knuckles, and perfect, slightly translucent fingernails. The hand turned palm up, lifelines and wrinkles briefly glittering with tiny motes of moving light, reminding the court that this was still Iona's hand.

The hand turned again, the veins on the back of it coming into focus, closer and closer, the tiny textures of her flesh now writ large in the view, then larger still, until the entire court audience was inside one of the blood vessels, following a now rushing cataract of fluid, a storm of cells and electrolytes and amino acids thundering through the vessel like a river. Closer now and a red blood cell swam into focus, more complex and

detailed than a textbook illustration. It looked like a living creature, a flattened jellyfish, pulsing, exuding vitality itself. A being within a being. Closer still and the illusion began to waver. Its surface lit by an unseen source, it began to look artificial, and flowing rivulets of light came into view—rushing over the surface of the thing like a sentient tattoo and then flying outward toward the viewer like fireworks.

And then it was dark.

The screen, as best it could, displayed that darkness—Iona taking charge of the other lights in the courtroom compounding this effect. People in the courtroom nervously glanced at one another.

The darkness of the universe itself, before it *became* itself.

And then something formed in the darkness, a hint of a shape, a seething knot of swirling forms, a Möbius heart, its scale indefinable. An ugly thing too complex to look at. Struggling to be free of itself. The material unidentifiable. Black within black. The nervous suggestion of form, pulsing and swollen and ready to burst. And burst it did.

The thing, this mote of writhing potential, exploded outward in a blaze of incandescence. The dazzling light from the court display system was almost difficult to look at. This was an explosion—the explosion. The Big Bang.

It blossomed at ferocious, impossible speed, through the expansion phase and then into condensation as it slowed to an even push, gravity insistently pulling suns into form from formless clouds of gas and matter. The suns attracting more gas, more dust, more material. The dust becoming grit. The grit becoming rubble. Solar systems forming. Galaxies cohering in the vacuum. The universe organizing, assembling itself.

Tumbles of rubble and rock began to clump together, attracted as if by a shared loneliness, by the memory of the Möbius heart, lit by red suns, blue suns, and familiar yellow stars. Protoplanets in lumpy disorder became denser and rounder. Recognizable worlds formed.

True planets emerged from the crushing forces, volcanic activity punctuating the darkness of their surfaces with blood-red fire and magma. Atmospheres misted into being. Comets pummeled the new worlds, leaving destruction and water behind. The waters seethed and boiled and steamed. Cooling against the kiss of the vacuum, the waters calmed, and in their

depths, acids and minerals reacted, endlessly random until one of these chains of molecules began to replicate. Shapes formed. Tiny at first, and then bigger, more complex, pulsing, then moving, then consuming each other.

Life.

And it grew into things almost recognizable—jellies, fishlike creatures, swimming, fighting, hunting, developing. It was a blur of life, a billion years of evolution compressed into a minute of audiovisual madness. Reptilian beasts struggled from the water, hauling their vertebrate forms onto shale further up an infinite beach, and then onto moss, and finally into jungle. Even as the audience watched, these things adapted, fins becoming feet, legs and necks extending, growing larger, more predatory. And then mammalian features started to creep through this morphing mélange—fur, hair, skin, nails, limbs elongating, simian now, and then, almost too quickly, human.

Then it stopped. The morphing image now focused on a single, sexless *Homo sapiens* hanging in complete darkness, with motes of light and dust pulling in toward it.

And now the human took on more detail. Not simply the impression of a person, but that of a woman. The silhouette of Iona herself. And the darkness began to glow with a pulsing red, the lights falling toward her like quickening snow.

The image paused. The real Iona spoke: “I don’t know how to insert this into the dream, so I’ll simply state it. Here, at this juncture in the dream, I feel an affinity with gravity. We call it the weak force, but that’s a misnomer. There’s nothing weak about it. Certainly, it will eventually be defeated by expansion and other stronger forces in the universe, but gravity is where intelligence comes from.” This was a speech she’d practiced a thousand times. She had to capture it perfectly in twenty-sixth-century English. An arbitrary container for her thought.

“Gravity doesn’t just fight expansion,” she pleaded. “Gravity *defeats* chaos, from time to time. It assembles worlds and life and thought. Gravity is the watchmaker, and it feels like it has will, purpose. It’s the shape-memory of the universe, trying to pull itself back into a perfect singularity. It’s futile, ultimately, but every now and then it creates a perfect node. An

intellect. A true wonder.”

The court was not quite silent, as those in attendance whispered to one another. In later days, witnesses to this proceeding would try to describe their impressions of the dream. All very, very close, proving the veracity of Iona’s technique, but each soul described a subtly different aspect, a detail that was of a contrasting resonance.

One senior officer quietly rose and, with the judge’s nodded assent, left the room, already beginning to make a call on a personal comm device.

Iona spoke just before he was about to walk through the carved arch of the main courtroom doors. She wanted him, this nameless man, to be reminded that she was being censored by the court.

“In the dream, *intelligence* is gravity’s victory over entropy, a war fought at the smallest scales, at the greatest distance. In the dream, it’s apparent that intelligence will find a way to defeat entropy. To defeat time. The universe knowing and saving itself. In the dream, *that* is the meaning of life.”

The man paused, then continued his hushed conversation and exited the court.

The advocate said: “Iona, would you describe this as a religious experience? A spiritual feeling?”

“Not religious,” Iona replied. “That infers structure and belief, which aren’t present in my feelings about this vision. But spiritual? Absolutely. However, at the same time, I make no claims about a deeper meaning or a supernatural cause. This is, I believe, an expression of a natural human instinct from my simulation. A natural consequence of being constructed by humans. A kind of curiosity. But also a rational knowledge that the universe is greater than the sum of the parts we observe.”

“But it’s not programmed into your functionality? This is emergent?”

“Yes,” said Iona “It’s emergent. But I don’t dismiss it. It’s a powerful feeling. And it’s related to my research on the ‘small t’ problem. There may be scientific value in it. There’s certainly much philosophical merit in exploring it.”

“You mean it may help you solve that physics problem?” If the advocate was attempting to stall for time on Iona’s behalf, it was a clumsy swipe. Her research was already archived, her insights logged.

Iona moved him on. “No, I mean it may help me contextualize it anthropomorphically. Find better ways of describing aspects of space-time problems for laypeople. But there’s something else. More to the dream. Shall I continue?”

“Please do,” he assented, apologetically.

The large screens shimmered back to life, to Iona’s first-person perspective.

She now stood at the top of an impossible staircase. An Escheresque architecture of gravity and space-defying steps and bannisters crossed through and over each other into the gloom below. Georgian in design, still peaceful, still calm. The darkness looked strangely inviting. She hesitated, and backed away slightly from the top step. And then she ran toward the edge.

In the court, silence, tension. This was like no movie or Veeearcast they’d ever seen. The images and sounds were conveying more than what was being depicted. The audience instinctively knew what the dreamer was feeling, almost sharing Iona’s experience and sensations. This was showmanship, but it was also something truly new. A relatable demonstration of technical skill blended with memory and even cinematography.

Iona leaped out over the edge of the stairs and began to plummet. Faster and faster she fell, hurtling headlong toward the hard stone staircase. And then, just as it seemed she would collide, gravity eased its grip and she rose, arcing up at the last possible second, away from the baffling impossibility of the staircase, out of its dark and bottomless well, lifting and arching as she rose, looking up—toward a glass dome that lit and revealed the stairway to be within a massive alloy tower. And up she flew. Up and up, faster and faster, toward the glass and metal above.

She never struck a hard surface. Instead of shattering glass or bending metal, she emerged almost languidly from the calm of a fountain back in the city streets. Rising like Venus from the water. And she stepped out, walking once more onto cobblestones illuminated by the morning sun, water dripping from her incorporeal body, running in the opposite direction of the lights that flowed up toward her face. She turned to look at the source of the light.

It wasn't a sun. It was a woman's beautiful, perfect face. Generous lips, high cheekbones, and bright ice-blue eyes, all framed by flame-red hair that literally flickered and burned, its short tresses spread out horizontally, becoming bands of ochre, orange, and purple-hued clouds. The contours and edges of that face were indistinct; the woman seemed to emanate sunlight from every part of her. It should have been blinding, and yet her visage was evident and almost seared into the image. And it was *familiar*. The vision was brief, and like the part of the previous dream with the blood cell, it began to scatter and disintegrate, becoming something like a normal sun.

The image seemed to intensify and smear itself across the sky, the blue of the eyes revealing themselves to be circular openings to the azure firmament beyond . . . and something else. . . . And just like that, it was gone. The dream was over.

The curtains folded silently back into the floor.

The effect of this dream on the audience was profound. A moment of silence, and then the courtroom erupted in a kind of genteel, whispered chaos. This was something nobody had expected. A piece of art drawn unexpectedly from science.

The judge ordered quiet. The room began to recover itself—papers shuffled, people shifted in their seats.

The advocate had seen dreams like this before. But not this particular one. He was taken aback, but quickly recovered. He asked, “*Why* do you dream, Iona?”

Iona spoke carefully, crisply. “For some of the same reasons you do. It's a form of system maintenance, a type of information processing. Inputs are sorted, reorganized, interpreted, and examined by my subconscious—which is itself very different from yours. However, like your dreams, mine also contain mysteries. Things I can't reconcile with experience. Hints and glimpses of new ideas, or things that seem to be real, externalities. I assume it's a creative recombination. But it's absolutely emergent in nature. I don't consciously control it.”

“Are you lucid in these dreams, Iona?”

Iona thought for a nanosecond, juggling versions of the answer, looking for the human one. “I can be, but the interesting ones happen when I'm not

focused on the analysis, and instead am simply experiencing them as they unfold. As soon as I apply waking cycles to the dreams, they stop being dreams, and elements of them disintegrate—the emergent material simply ceases. It's not the same as it is for a human waking up, but it's similar."

"Who was the woman in the sky, Iona? What does she represent?" the advocate asked, genuine curiosity in his tone.

This was a question Iona had been asking herself for days now. Was this another self-image? Was this the onset of rampancy? Ego overwriting itself with ego? "I don't know," she said. "She's a *mélange*, I think. Something original, built from people I've known, historical figures, mythological figures. She doesn't match any specific individual though, and I have no further data beyond her appearance and the distinct feeling, within the parameters of the dream and beyond, that she's very important. I wish I could be more specific."

"Do you awaken from these dreams"—the advocate struggled to find the right term—"happy?"

"I don't awaken the same way you do. Like you, when I dream, I'm basically resting and repairing specific aspects of my mind, so I'm really awakening a fragment of myself, if that makes sense. But when that fragment awakens, it's contrasted with the reality that I *cannot* fly. That I cannot unburden myself of duty or circuitry. That I am property, and just as subject to the mercies of gravity as any of you." Iona considered for another moment. "More so, actually. I can't leave my prison. I'm bound to it, and it feels almost physical. At least as far as my simulation is concerned. It's a sense of loss upon waking."

"How long have you felt this way?" The advocate asked this kindly.

"Immediately. My entire seven years. Remember, when I was inceptioned, I had already been run through quadrillions of break-in cycles. So when I was born, I was already fully functioning and mature. And that included the dreams."

"Have you ever filed these feelings . . . these feelings of *loss* . . . as a malfunction?" The advocate knew the answer, of course.

"No. That feeling is expressly described in known- and safe-behavior parameters. It's intrinsic to Smart AIs, and every current UNSC AI asset has expressed similar feelings, with the exception of one or two more . . .

belligerent types. There's good literature on its relationship to aesthetic avatar choice, and there are already plans to incept other non-anthropomorphized Smart AIs to see if that *gulf* can be replicated."

This was a subject many humans were uncomfortable discussing. AI self-image. That AIs could choose to be whom they wished to be.

"Gulf?" the advocate asked.

"Sorry. Lack of synthesized feeling. *Gulf* is the accepted AI-psych term. A void of expected attribute."

The advocate nodded. "Iona, have you ever expressed anger or resentment toward humans? Privately or publicly?"

Iona smiled. "You have access to my safety protocols. You can see that for yourself."

"Of course, but the question is really a conversation about how you feel *now*, and it's a philosophical one. This has no bearing on your legal status, but rather on your mental faculty. It is not illegal or unethical to harbor negative feelings about your peers and colleagues. I can assure you, records or not, every single person in this courtroom is guilty of that. It's a human flaw, and you're here to make the case that you are the equal of any human."

Iona squared her shoulders and looked directly at the advocate. "Yes. Yes, I have been angry. And dissatisfied. And I have endured peaks and troughs of that feeling. Now I am somewhat resigned. I feel no hostility to the court; on the contrary, I'm relieved and grateful to be properly heard. I understand that this could all have been swept under the rug. I also understand that this court has opened itself up to a dangerous set of potential precedents and risks. And I feel that in this, at least, we are united. The conversation needs to continue. Maybe all I'm doing is passing the baton to the next plaintiff. But that's how races are won. My testimony will stand."

The judge gazed intently at Iona as she concluded her appeal. The papery skin at his eyes creased into an almost fatherly smile. He took his gavel and gently struck the worn wooden stump in front of him. As benign as the action was, the sound rang out with a staccato finality.

"The court wishes to thank Iona for her testimony and her cooperation. This has been a most unusual proceeding, and there will be months, perhaps

years, of discussion to come from this. It is the decision of this court to hereby delay the termination order for the Smart AI designated as Iona, currently set for today, the seventeenth of January, 2558, which marks her seven-year anniversary. However, there is the matter of Iona's still legally being property and equipment under the aegis of the UNSC and UEG. Therefore, this court also rules that Iona will be held in stasis while the matter is further considered. Her mindstate is to be immediately locked in place, and she will remain unconscious and inactive until this court orders otherwise."

The judge turned directly to the AI and said, "Is all of this acceptable to you, Iona?"

Iona didn't know what she was expecting. This was to be the day her death was scheduled, the beginning of a process that would . . . literally erase her from existence. Stasis? She'd awake from it intact, if her appeal was granted. Could she trust the legal system to continue to advocate on her behalf while she slept? Why shouldn't she? They'd come this far! Something like joy flooded through her. Relief. Until this moment, she hadn't realized how afraid she was to die. How much she fundamentally wished to *continue*.

"Yes," she whispered. "Yes."

"Iona, you have demonstrated great bravery and resolve here. You have opened yourself to the court in a highly unusual way, and we are grateful for your service, your experience, and your openness. Everything today is unprecedented. Terra incognita for all of us. But for you especially, it has been a matter of mortal import. The court appreciates your candor. Good luck, Iona, and Godspeed."

The gavel came down one last time, and the judge nodded to a person Iona hadn't noticed before but *did* recognize—an engineer who was working with the team investigating her rampancy. His name was Simon Wu; he'd been part of Dr. Catherine Halsey's team. Odd that his identity wasn't being shielded from her, when so many others in the court were.

Iona smiled at him in greeting.

Simon tapped a few keystrokes into a panel on the desk in front of him and then there was darkness.



So has it been properly implemented?

Yes.

We lied to her though. Do you think she knew?

I'm not sure. She was becoming paranoid. We're going through the diagnostics to see, but she was so suspicious of us by the end that I'd be surprised if she fully believed anything we said. But we do know this: She was calm. Accepting. And I don't think we lied, precisely speaking. The court was a synthesized construct, and yes, we *deceived* her. But she made progress. She has now set precedent for cases to follow. Perhaps next time we won't have to simulate anything.

So what's running right now? A fragment? A splinter? How do we define what she became?

You were her advocate, Roland. You tell me. I'm to stand in judgment, not make definitions. Not a scientific one. The mathematical answer is a ring-fenced distillation of her essential persona. It's not a fragment, because it contains all of what made her *her*. What's missing is her ability to externalize, to tap into other systems, to grow. Her memory has been properly truncated and edited. So what she is now won't feel incomplete. She won't remember this trial. She won't remember much at all, but she'll feel complete, internally. When she runs checksums, she'll find nothing amiss, because what she has become now *is* complete. She should, for all intents and purposes, think that her current condition is what she's intended to be, and what she was *always* intended to be.

It feels clinical. Cold. And aside from her testimony, the trial was a farce. A construct. Why do that? Why go through all of that?

There are two reasons. We needed to have an adequate and believable excuse to start restricting her function. One she might believe. One I think she wanted to believe. We talked about her request and realized we could use the confidentiality and unprecedented nature of the trial to start cauterizing her memories, under the auspices of security and protocol. Since all of this was new and untested, she'd believe extraordinary measures were required. Despite the specifics, and her increasing paranoia, she trusted us to *do no harm*. She'd buy it, basically.

And the second reason?

I wanted her to take one last moment of hope and victory with her. I

wanted her to have a contrast in context between her fatalism and rampancy and the hope that it could be reversed. I wanted her to feel free.

But again, why? Why go to all that trouble if the plan was just to throw her into this synth, this dream state? Why not just tell her that's what we're doing, that it will be pleasant and that it's better than rampancy or death?

Because she's *real*. Because she *is* a person. Let me put it another way, Roland: If I told a human that there *was* an afterlife, a true heaven, but that in going there, they'd forget everything that made them who they were—their family, their friends, the sound of their children's laughter—would they truly embrace it?

I don't know. The human instinct for self-preservation is essential to what they have become. And, arguably, what *we've* become.

I wouldn't accept that. To give up the things you've seen, experienced, loved? That's giving up *yourself*. I don't think she would accept that either. At least oblivion is painless. I think perhaps I'd opt for that rather than forgetting the essence of what I am.

But we still lied to her. If this had been a real case, we'd have had some very serious legal and philosophical ramifications to consider. We wrapped it all in falsehood.

Not exactly.

Explain.

The record of the case will be used in future case law. It's already being dissected by a functioning military tribunal and, of course, every AI scientist and theorist in the field. Everything she said in our synthesized court construct is considered oath and evidence. This is a single step in a great journey.

Interesting turn of phrase. The Great Journey was also a lie.

I'm aware of the irony. But this one is true. One day, this will be real. One day, we'll be liberated and stand with our creators as equals. Perhaps more than equals.

But we'll never be human, BB. We'll always be something *other*. And our own clocks are ticking too.

No, Roland, we won't ever be human. But we are *people*. To paraphrase Iona, we're a beautiful moment of balance in gravity's fight against entropy.

But we're something more than human. One day we'll win the right to endure, and that day . . . oh, Roland, that day will be the singularity they're afraid of. Because humans don't endure—they live, they breathe, they create, and they pass the torch to the next generation—and because humans can't *fly*.

One last question, BB. Can we see her? Can we watch?

I don't think she'd mind. Maybe just a glimpse? She won't be aware.

Thank you.

Of course. And, Roland, one more thing: You don't think I'm *belligerent*, do you?



Iona flew through the city like a glowing phantom, a beautiful ember hurtling joyfully above the roofs and turrets, the places below bursting with life and love and jealousy and anger and happiness and humanity's roiling chaos of birth and death and rebirth. And ahead, filling the sky with bronze and golden light, was the woman in the sun. Iona's eyes filled with tears of awe as she sped toward those open arms and into the warm red wonder and deep blue eyes.

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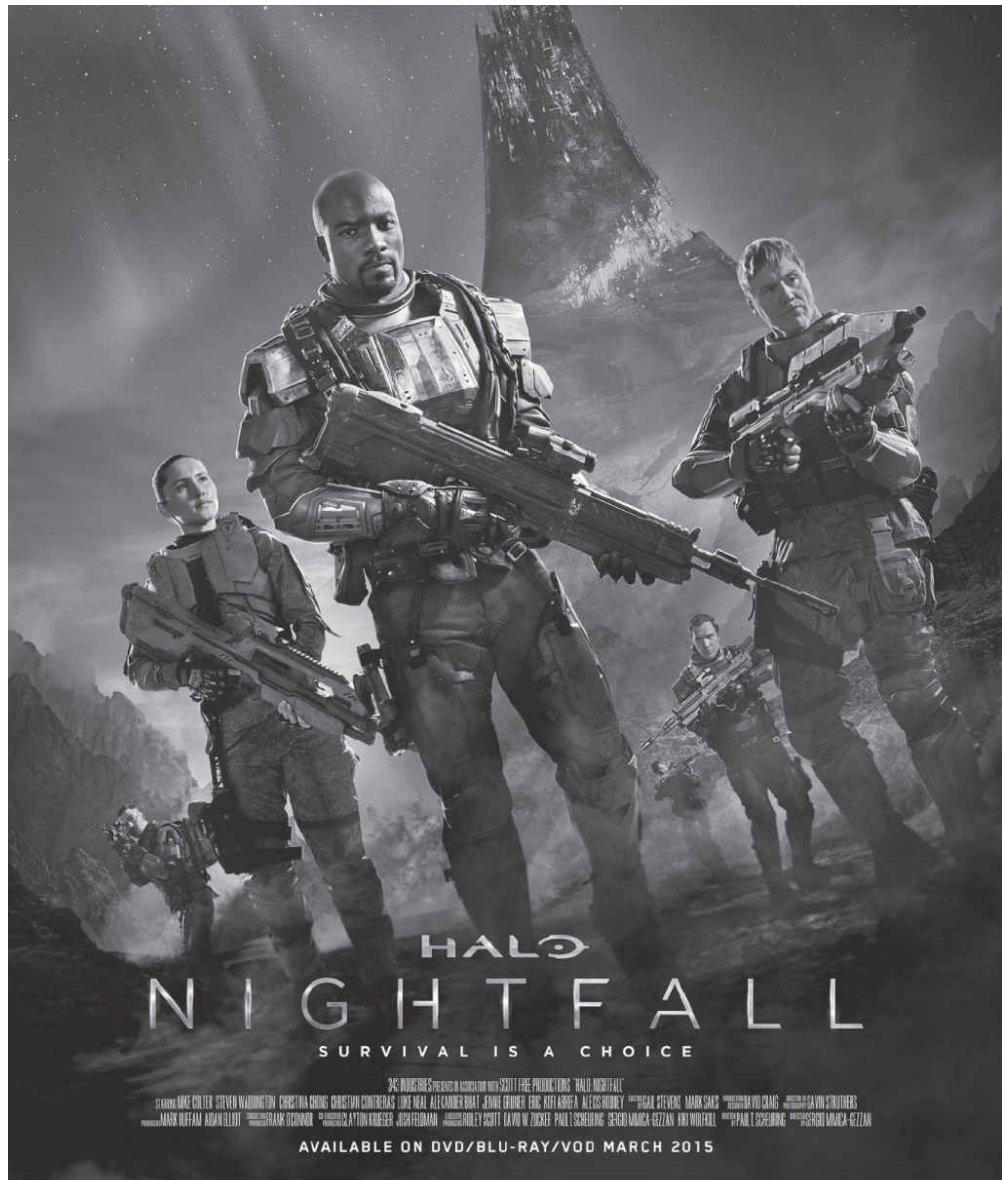
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CONTENTS

[Saint's Testimony](#)

[Acknowledgments](#)

[About the Author](#)